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OYSTER CULTURE IN
NORTH CAROLINA.

By Robert E. Coker.



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THE NORTH CAROLINA GEOLOGICAL SURVEY.

JOSEPH HYDE PRATT, ACTING STATE GEOLOGIST.

Economic Paper No. 10.

OYSTER CULTURE

IN

NORTH CAROLINA

BY

ROBERT E. COKER.



RALEIGH:

E. M. UZZELL & Co., STATE PRINTERS AND BINDERS.

1905.

Monograph.

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LETTER OF TRANSMITTAL.

RALEIGH, N. C., December 1, 1905.

To His Excellency, HON. ROBERT B. GLENN,

Governor of North Carolina.

SIR:—I have the honor to submit for publication, as the tenth of the series of Economic Papers, a special report on Oyster Culture in North Carolina. In connection with the development of our oyster industry there are certain questions that are constantly being raised, and an attempt has been made to answer these in this paper.

Yours obediently,

JOSEPH HYDE PRATT,

Acting State Geologist.

OYSTER CULTURE IN NORTH CAROLINA.*

BY ROBERT E. COKER.

INTRODUCTION.

In connection with the experimental work of the Fisheries Laboratory established at Beaufort, Carteret County, North Carolina, investigations have been conducted by the North Carolina Geological Survey in conjunction with the United States Bureau of Fisheries relative to the possibilities of oyster culture in North Carolina waters. From the first many courtesies were extended by Mr. W. M. Webb, State Oyster Commissioner, and in the present year (1905) the Oyster Commission has entered into coöperation with the Bureau and the Survey in continuing the experiments. These investigations have extended over a period of years, and at first were carried on near Beaufort in Newport and North rivers; but, owing to the success that was attained at these points, it was deemed advisable to try larger plants and a greater variety of bottoms, and for this purpose there was chosen the large and varied field offered by Pamlico Sound. In order to ascertain by actual trial what methods best suited particular regions or bottoms, plants were made on different bottoms and in various localities. By visits at intervals of a few months these experimental beds have been kept under observation, and data have been accumulated regarding the set of "spat," rate of growth, and other biological and physical conditions. Such investigations, however, did not seem entirely adequate for the needs of the case, and, therefore, in order to gain as practical a view of the situation as possible, and in order to profit by all experiments of whatever nature and by whomsoever made, the work has been supplemented by obtaining the results and experience of those who have actually planted with a view to financial profit.

It is not within the scope of the present paper to treat the direct results of the experiments and field observations, but rather to present certain observations and considerations which seem necessary to a proper understanding of the situation in regard to oyster culture.

It was intended that this paper should be in print by January, 1905, and ready for distribution at the convening of the Legislature, but owing to unavoidable circumstances its publication was delayed.

*Prepared in co-operation with the U. S. Bureau of Fisheries and published with the consent of Hon. George M. Bowers, U. S. Commissioner of Fish and Fisheries. The Commissioner is not, however, responsible for any of the views expressed herein.

It was practicable only to bring the manuscript to the attention of some of the members of the legislative committees concerned with the matter of legislation relating to the oyster industry. The acts of the Legislature of 1905 in respect to the leasing of bottoms for the cultivation of the oyster made such an improvement in the situation as seemed to require a thorough revision of the report. When, however, the full purpose of the paper is considered—the intention to give the people of the State some acquaintance with the condition of the industry of oyster cultivation and with some of the reasons for its want of development—it is thought best to present the paper essentially as originally prepared.

The laws relating to the leasing of bottoms, as enacted by the Legislature of 1905, are given on page 20.

OBJECTS OF THE INVESTIGATIONS.

It has been the aim of the investigation to answer by experiment and personal inquiry the following questions:

1. Can oysters be profitably cultivated in North Carolina waters?
2. Is oyster cultivation now an industry of any importance in North Carolina?
3. Can the State by investigation or legislation encourage the development of this industry?

1. Can oysters be profitably cultivated in North Carolina waters?

When we consider the abundance of the yield of the natural oysters and the very fine quality of the oysters of many places such as Harbor Island, Far Creek, Judith's Island, and New River, or if we regard the demand for North Carolina oysters in wholesale markets of Norfolk and other points, we find strong evidence in favor of an affirmative answer to the first question. The results that have been obtained in the experimental work in Newport River, which are described in the report of Dr. Grave,* are in accord with the verdict given above, as is also the general opinion of planters who have taken up the cultivation of oysters from a financial standpoint. Of all the planters who have been interviewed, there is but one who did not speak encouragingly in reference to this question.

2. Is oyster cultivation now an industry of any importance in North Carolina?

At the present time this question would have to be answered negatively. At some points it was learned that there were many holdings, and at others that there had been, but that the claims had been

*Bulletin N. C. Geological Survey. In press.

practically relinquished. Careful inquiries have been made at a number of points from Beaufort to Roanoke Island, but at no place was it found that the quantity of oysters planted per year or the amount marketed from private grounds was, from an economic point of view, worthy of consideration. One planter holds ten acres of bottom on which he annually plants, by estimate, 200 bushels of oysters, or not half the quantity that might safely be planted annually on one acre. Another planter uses 30 acres, held by himself and two other members of his family, and plants about 300 bushels of oysters one year, but plants none the next year. Still another planter had, formerly, still larger holdings, held through subleases, on which he at one time made very extensive plantings; but since it was found impracticable to protect his oysters, or for some other reason, he has not for a number of years planted or marketed to any extent. The same stories, slightly varied, are heard again and again. But the fact should not be overlooked that at several points throughout the oyster district there are a few oystermen who annually make their small plants, and by this means not only do they add appreciably to their own income, but, better, they are demonstrating that the cultivation of the oyster is a feasible and profitable undertaking. There is, however, no community in North Carolina in which the industry is of such importance that, were all planting to stop abruptly, the fortunes of the community would be seriously damaged; and this refers to an industry which, in other States, yields a product valued at hundreds of thousands of dollars. No reason is found for believing that the cultivation of the oyster may not be profitable in the waters of North Carolina. The growth of oysters in this State is more rapid than in more northerly States and the conditions for seed production are more favorable. During the past few years, when Virginia planters have been in serious need of seed, when in Connecticut the oyster industry has been seriously menaced by dearth of spat,* the North Carolina waters have shown each year a satisfactory set.

* "A year ago it was the hope of the commissioners that the three years of partial and unsatisfactory set would be succeeded in 1903 by a full set which would re-seed the public grounds and restock Connecticut waters, but this has not been the case. The failure of the natural oyster beds of Connecticut in 1903 was more general and discouraging than that of the three years next preceding.

What a difference four poor years may make to the planters can be readily imagined, and to the worker on the natural ground it is simply destruction." (Report of the Shell-fish Commission of the State of Connecticut, 1903, pp. 11 and 12).

"There has been no general set in New York waters since the year 1899. The abundance of that year has ever since furnished the trade with market stock and will carry the dealers over another year, during which, however, higher prices may be looked for. Should the next season not prove more bountiful in this particular, the planters will be in dire straits." (Ninth Annual Report of the Forest, Fish and Game Commission of the State of New York, transmitted to the Legislature, Jan. 18, 1904, p. 102).

"For the last two years there has been no oyster set, not only in our waters, but in waters adjoining us. As a very large supply of seed oysters which are planted in our State are produced in our neighboring State of Connecticut, we make the following extract from the last annual report of the Shell-fish Commissioners of that State as to sets there." (Then follows a quotation including the extract used above). (Annual Report of the Commissioners of Shell Fisheries made to the General Assembly (of the State of Rhode Island or Providence Plantations) at its January session, 1904).

3. Can the State by investigation or legislation encourage the development of this industry?

As has been suggested in the answer given to the first question, the undeveloped condition of oyster culture in North Carolina is not to be attributed chiefly to natural conditions; and the investigations that have been carried on during the past few years encourage the belief that oyster culture can be made a profitable industry, if the legislative conditions governing the leasing of the bottoms can be changed so as to give the planter an incontestable title to the bottoms upon which he is making his plants. The physical and biological conditions are treated in detail in Dr. Grave's report and will not, therefore, be discussed here; but consideration will be given principally to the legislative conditions governing oyster culture.

Some of the conditions that have persistently and insistently presented themselves as provisions necessary for the development of oyster culture in North Carolina are taken up in detail under the following heads:

1. An incontestable title.
2. Protection of the natural rocks.
3. Protection of the natural clam beds.
4. The liberty of lessee as regards methods and seed culture.
5. Maximum area.
6. The annual rent of bottoms.
7. The reversion of bottoms to the State.
8. Term of lease.

I. AN INCONTESTABLE TITLE.

The most essential condition relating to the development of oyster cultivation in North Carolina waters is that *the title of the lessee to bottoms for oyster culture shall be incontestable for the period of time for which the lease is granted, unless forfeited by the failure of the lessee to fulfill his part of the contract.* Some have, in good faith, entered bottoms for oyster culture with full conformity to the law and have invested their time and money in planting on these bottoms, only to have their title destroyed as soon as the beds became productive; as a consequence, yet without fault on their part, they suffered serious losses. These people cannot be expected to reinvest their time and money in oyster cultivation or to give any encouragement to others to attempt the same thing. Our present laws were intended to give an incontestable title to the lessee and at the same time to protect the State from any fraud; but these laws did not fulfill what was expected of them, as is evident from the results of the cases in court in which has been questioned the validity of the lease to certain productive planted grounds.

From a perusal of the sections of the North Carolina Code relating to oyster cultivation, it is seen that the entry of bottoms is permitted, provided they do not include natural rocks. This is of course a wise provision. But what means are provided for ascertaining, before granting the lease, whether or not the particular bottom in question is a natural rock? The grant is issued and the question of natural rock remains unanswered until perhaps several years later, when a trespasser is being prosecuted, he defends his act by denying the validity of the lessee's title, or claiming that the bottom in question is a *natural rock*, and a number of witnesses are introduced to prove in court that when the ground was entered by the lessee several years before, there was such and such a quantity of oysters on that particular bottom, sufficient, say, for an ordinary oysterman to earn a daily wage.* Whether or not the lessee intended to deal in good faith, his holdings and all his labor may be lost in a moment. It is thus very important that the question, whether a bottom is a natural rock or not, should be definitely and finally settled before the lease is made. The people would not then be deprived for a period of time of the uses of productive oyster bottoms which rightfully belong to the public; nor, on the other hand, would the investor be liable to throw away his labor and capital on bottoms which he cannot control.

For some years there has been in court a case of the State against a private planter, of Hyde County, for the recovery of oyster bottoms which were granted to the planter by the State, but which, it is now maintained, could not have been taken up legally, because it can be shown by witnesses that the bottoms in question were, at the time they were entered, natural beds. In the meantime, however, thousands of dollars had been spent by the lessee in planting and protecting his holdings. Assuming that the planter was sincere in declaring the bottoms he desired to enter were not natural oyster beds, he

* Illustrative law case regarding title to oyster bottoms:

THE STATE v. ELIJAH D. WILLIS (104 North Carolina, p. 764).

"This was a criminal action tried on appeal from the Justice of the Peace before *Shipp, J.*, at Spring Term, 1899, of CARTERET Superior Court." The defendant was charged "with taking oysters from the oyster gardens of one John D. Chadwick, on or about 20th day of February, 1888, without permission of said Chadwick first had." The defendant pleaded "Not guilty," contending that the said bed staked off and enclosed was a "natural oyster bed" and "any citizen had a right to take oysters therefrom." * * * The jury returned the following special verdict:

"That the prosecutor, John D. Chadwick, has had his oyster garden made and staked out in Carteret County according to the requirements of the statute, and obtained a license, or grant, from the Clerk of the Superior Court of Catawba County for the same; that the defendant took oysters therefrom, within the stake so laid off, without permission of John D. Chadwick first had; that there were no oyster rocks within the stakes where the garden was so laid off; that there were some oysters within the same, but that they were scattering, and oysters naturally grew there; that the area embraced within the stakes, which was two and three-fourths acres, was not such as would within itself induce the public to resort to it and get oysters, but in connection with the oyster rocks and oysters nearby, the public were in the habit of taking oysters from the said area and adjacent territory for livelihood or for market.

"If upon the foregoing statement of fact the Court be of the opinion that the defendant is guilty, then the jury say he is guilty; but if upon said statement the Court is of opinion that defendant is not guilty, then the jury finds he is not guilty.

"Whereupon, the Court adjudged that the defendant is not guilty."

In the case instanced the decision of the Superior Court Judge was afterwards reversed by the Supreme Court on the ground that the verdict of the jury, by not bringing the case within the definition of a natural rock, did not authorize a verdict of "not guilty." But in other instances, the history of the cases has been different and more disastrous for the planter.

is yet forced to defend his title in a long and expensive lawsuit, which will result either in showing that the suit is unfounded or in depriving him of large investments that he has made in good faith. On the other hand, however, assuming that his original declaration was insincere, the public has for a period of years been fraudulently deprived of the use of the natural oyster bottoms in question, and for the recovery of these bottoms the State is forced to great expense. All such trouble and wasteful litigation may be prevented in future by the State ascertaining *before a lease is granted* whether or not the particular bottom or bottoms in question are natural oyster rocks; so that the lease, once granted, will be incontestable so far as relates to the question whether or not the original bottoms were natural oyster rocks. Thus, in the case referred to above, if the bottoms were natural oyster bottoms, the lease should never have been granted, whatever might have been the declaration of the interested party; and, on the other hand, if the bottoms were properly subject to lease, the lessee should not at any time, because of uncertainty as to the original conditions of the bottoms in question, have his title threatened or be put to great expense to prove the propriety of his possession. Proper protection to the State from improper entry will at the same time be a protection to the lessee who has made the entry.

The question is particularly complicated because the term "natural rock" cannot of necessity be an exact term. One person, in good faith, will affirm that a bottom in question is a natural rock, while another, also in good faith, will affirm that it is not a natural rock, because they differ in their ideas as to the degree of abundance of oysters that is required to form a technical "natural rock." Again a witness may dishonestly affirm or deny that a given bottom was a natural rock. Of course, personal statements regarding a previous condition of a bottom are practically impossible of verification. If oyster planting is to be encouraged in North Carolina, too many barriers must not be placed in the way of entry and investment, although it were far better to have almost insurmountable barriers than to permit an investor to enter and build up a business on an entry which, instead of being a solid foundation, may prove to be a delusion. Incontestability of title, as long as the lessee fulfills his part of the contract, is a prerequisite of a prosperous oyster-planting industry.

HOW MAY EXISTING CONDITIONS BE REMEDIED?

One satisfactory solution of this question is a complete survey of the oyster bottoms, which, by means of charts, stakes and buoys, will render it easy to ascertain what grounds are closed and what are open to entry. This method has in Virginia formed the backbone of an industry which has enriched persons and communities and added

largely, both directly and indirectly, to the revenues of the State. Although such a survey calls for a considerable outlay on the part of the State at one time, yet as it would be the most satisfactory, it is believed that the State would be justified in making the expenditure that the survey would entail.

A more economical method than the above would be as follows: The bottoms to be entered should be personally examined by an officer or officers appointed or elected with the duty and power of determining positively whether the bottoms in question are or are not natural rocks. When a bottom is applied for, the application and the date set for examination and hearing of objections should be duly advertised, and full opportunity given for those who desire to do so to present objections to the granting of the lease. The official verdict, when rendered, should be final.

It is clearly important that this duty of the examination of oyster bottoms should be assigned to some officer or officers who have more than a casual acquaintance with oyster bottoms and oyster cultivation. It might properly be assigned to the Oyster Commissioner and his assistants, or to responsible boards in the several counties appointed or elected for the purpose. If delegated to the Oyster Commission, such duties would doubtless be taken up chiefly during the closed season (April 1 to September 30, inclusive), thus making a greater demand upon the time of the Commissioner. If the duty of examination pertained to a county board, the members should be allowed a fixed compensation and reimbursement for necessary expenses. The services of an official (State or county) surveyor would be required. All fees and expenses should be paid by the applicant, and in consideration of this expense the rental for the first year of the lease might be remitted.

II. PROTECTION OF THE NATURAL ROCKS.

"A 'natural oyster bed,' as distinguished from an 'artificial oyster bed,' in the sense in which those terms are employed in The Code, is defined to be 'one not planted by man, and is any shoal, reef or bottom where oysters are to be found growing, not sparsely or at intervals, but in a mass or stratum in sufficient quantities to be valuable to the public.' " (Sec. 2371 North Carolina Code, page 701). Briefly, a "*natural bed*" or "*natural rock*" is a bottom whereon oysters occur naturally and in sufficient abundance for an ordinary oysterman to make a daily wage. Grounds where oysters are found more scatteringly are not to be considered as "natural rocks" or "beds."

Probably if no restriction whatever were made and all bottoms were thrown open for entry, the final result might be quite advantageous, and we would have in the end wonderfully productive bot-

toms which would give employment to thousands of oystermen and yield large revenues both to the planters and to the State. The objection to such a procedure is that in the meantime thousands of oystermen, who are now accustomed to earning their winter's living from the public oyster grounds, would be temporarily thrown out of employment. Then again, most of the fertile public bottoms would fall into the hands of a few, who would not be able to improve them so that their yield would be greatly increased. As a consequence, much harm and suffering would result in the readjustment to these new conditions. It must, therefore, be accepted that the natural rocks shall be left open to the public.

However definite a law may be regarding the delimitation of the natural rocks or beds, a great deal, of necessity, will have to be left to the judgment and discretion of the officials appointed for this work. Thus, in a given bay there may be many small patches of oysters scattered here and there, the oysters being abundant in each little patch; but the beds taken collectively cover but a very small area of the bay. The question at once arises, shall the whole bay be closed to entry, or shall each small bed be plotted off as closed ground and the rest left open for entry, or shall the whole bay be left open? The officer's decision must depend largely on the abundance and size of the patches. A search of the laws of other states shows no attempt to lay down a more definite rule, nor can any be suggested. In rendering the decision from which the above definition was quoted, Justice Shepherd said: "While it seems impossible to give a more particular definition, it is believed that the one that we have adopted reflects the true spirit of the law and may be of some practical use in ascertaining where grants may be made." With that definition and by the use of careful judgment, the officer need make no serious mistake. In this connection the following suggestions for working rules may be given:

a. In general, the benefit of the doubt should be given to the natural rock; as the least friction and trouble for all parties concerned will result from an error of keeping closed certain grounds that might have been left open, than from the mistake of leaving open grounds that should properly be closed.

b. A small area should be left around each natural bed and straight lines should be used in bounding them. This will save trouble to the oysterman working on public grounds, annoyance to the planter, and needless litigation on account of trespassing. The planter would find it difficult to protect his oyster bottoms from malicious or unintentional marauders if his ground was separated from the natural beds by irregular lines.

III. PROTECTION OF NATURAL CLAM BEDS.

In what has been said so far, no reference has been made to the matter of natural clam bottoms. The interest of the clammer is no less worthy of consideration on the part of the State than is that of the oysterman. The hard clam or "little-neck" clam (*Venus mercenaria*) is the object of an extensive fishery in this State. Important canning industries are developing, yielding various products, and clam "bedding" is being done on an increasing scale. The fishing of natural clam bottoms is perhaps at its maximum now, while the possibilities of clam culture are as yet problematic.

It is therefore important that the proper officials should examine bottoms with reference to the natural growth of both oysters and clams. The question to be decided would then be, is the bottom in question either a natural oyster bed or a natural clam bed?

The test of a bottom for clams is essentially the same as for oysters. A natural clam bottom might be defined as one whereon clams occur naturally and in sufficient abundance for an ordinary clammer to make a daily wage.

IV. LIBERTY OF LESSEE AND SEED CULTURE.

The lessee should be unrestricted in his methods of working his leased ground or in the place or manner of marketing the products from his grounds. The restrictions applying to the fishing of oysters on the public grounds, in order that the oystermen of small means shall not be placed at a disadvantage with the larger oystermen, and to prevent rapid exhaustion of the public beds, should not be applicable to the private bottoms. Thus, if two persons are working side by side on public grounds, one may be placed at a disadvantage by certain methods employed by the other; but if one is at work on his own ground where the other cannot enter, his methods cannot in any way hamper or concern the other. The wisdom of leaving every oyster farmer liberty to work his bottoms in the most economical way, as long as he carries out the provisions of his lease, will be just as well recognized as the wisdom of permitting every cotton or tobacco farmer liberty to work his lands in the most economical manner.

It is a wise provision of the general oyster law that prevents the shipping into other States of seed oysters taken from the natural rocks or bottoms. The clause should, however, be so framed that it would not prevent the exportation of seed grown on shells or other cultch artificially planted on leased grounds. With our present knowledge of the natural history of the oyster, it is believed that the spat which sets on certain shells would probably have been entirely

lost had not this cultch presented itself. Certainly the future of the oyster industry is in no way menaced by shipping out of the State seed from private grounds. The Commissioners of New Jersey deplore the fact that their planters swell the profits of Connecticut oyster cultivators by buying seed from them;¹ while they boast that they do in some regions (Newark Bay) grow a seed that they can ship² to the Pacific Coast, and urge that their State should supply other States with seed.³ Connecticut supplies Rhode Island with seed.⁴

It is easy to distinguish between the folly of shipping out of the States seed oysters from the productive natural rocks—thus depleting our own beds—and the wisdom of shipping excess seed from artificial beds—thus utilizing that which might otherwise be waste. It would, however, become necessary that the inspectors at South Mills and Coinjock have some means of assuring themselves that a given cargo of seed oysters is from private rather than public beds. The burden of proof may well be placed on the captain of the vessel carrying the seed, and there may be provided by law a means by which this proof can readily be obtained.

It is very probable that the raising of seed oysters may offer a particularly good opportunity for oystermen of small means, as they can purchase shells at 1½ cents per bushel, and, by furnishing their own labor, plant them at odd times without extra expense. To grow large oysters might require rehandling and more care than they could afford to give; but they could, after a year or two, market the seed at probably 10 cents, 15 cents or even 20 cents per bushel, which, with a liberal discount for loss of shells, will leave a good margin of profit. Although it cannot be *positively* stated at the present time, without further practical demonstration, that the growing of large oysters will prove profitable, it is a practical certainty that seed oysters can be grown successfully. The experimenting planter will, therefore, have two opportunities for profit in his oyster cultivation. There are some who cannot afford to wait three or four years for the first returns from their investment, but who can plant and await the greater profits of the cultivation of large oysters, provided they may have at least a small return during each of the first few years, and such planters might accomplish this end by planting a portion of their holdings for seed oysters. Therefore, if there is any argument advanced against shipping out of the State seed oysters raised from private bottoms, it would yet be strongly advisable

1. Report of the Commission for the Investigation of the Oyster Industry. New Jersey, 1902, pp. 14, 17, 20.

2. Report of the Commission for the Investigation of the Oyster Industry. New Jersey, 1902, pp. 7, 10.

3. Report of the Commission for the Investigation of the Oyster Industry. New Jersey, 1902, p. 17.

4. Annual Report of the Commissioner of Shell Fisheries. State of Rhode Island and Providence Plantations. January, 1904, p. 4.

that no such restriction be placed until the industry has passed the experimental stage.

In this connection it is well to call attention to the fact that in the upper waters of Roanoke Sound there is a large area which is not suitable for the growing of large oysters, but which can be made useful for the growing of seed. Almost every year the abundant young oysters are killed out by the influx of fresh water from Albemarle Sound; yet these young oysters might have been of great economic value if they had been shipped as seed. It is reported that lower down in this Sound each annual set is overcrowded the next year and the growth rendered valueless for market purposes. Thus, there are regions, and not only in Roanoke Sound, but in other places (on shoals, etc.), which have great potential value, not, however, for the growth of large oysters, but only as grounds for the production of seed oysters.

For these reasons it can be seen that great care should be taken that whatever restrictions are made relative to the shipping of seed oysters do not interfere with the cultivation and shipment of seed from such bottoms as are not capable of raising large oysters and also with the cultivation and shipment of seed from private gardens.

It is difficult to get at the bearing of present laws on this matter of shipment of seed. Express provision could be made that sections 3, 11 and 17 of chapter 516, Public Laws 1903, or any other law, should not be construed to prohibit the cultivation and shipment of seed as described above.

Sec. 3. Provides for seizure of vessels or trains on which are loaded oysters not properly culled. Offering uncultured oysters for sale a misdemeanor.

Sec. 11. Provisions for culling oysters.

Sec. 17. Provisions for purchase of oysters to carry out of State by vessel.

The possibilities of the cultivation of clams are unknown. But experiments on this line are to be encouraged. Hence, a lessee should be authorized to use his grounds *for the cultivation of either oysters or clams*.

V. MAXIMUM AREA.

The maximum area a lessee may enter under our present law is ten acres. In most cases such a limit is unduly small. Ten acres might be a reasonable limit in creeks and small bays; also, where an individual does all of his own work, planting, cultivating, tonging and marketing, he will undoubtedly find that ten acres will be all that he can take care of to carry out the full provisions of his lease. On the other hand, however, it seems unnecessary that a planter who is so situated that he can handle a greater acreage and give employment to oystermen and boatmen should be limited to ten acres. In no other

State with an important oyster-planting industry is this maximum limit so low, and such limitation of area is not justified by expediency or economy.

It is an error, too, to apply in the open waters of Pamlico Sound the same limit that is adapted to bays or shore bottoms. No one has undertaken or can be expected to undertake to cultivate a ten-acre garden several miles off-shore in Pamlico Sound, for one could not afford to use, in planting and working such a small garden, the methods that such a location would require. The planter would not even be able to employ a watchman. Clearly it is not wise to have a limit so small that, if the object that the law intends to further is carried out, it is done only by evasion of the law. In the open waters of Pamlico Sound one hundred acres would be a small enough limit—and then far smaller than the limit in any other State with a prosperous oyster-planting industry (Virginia, Rhode Island, Connecticut, New York). Even in bays, twenty-five acres would be sufficiently small. The conditions of the lease can be so adjusted, as will be seen below, that a planter, entering more acreage than he can successfully take care of, will have to give up his excess acreage and allow it to revert to the State.

VI. RENTAL OF BOTTOMS.

There are a number of reasons why an annual rental should be charged for the leased grounds. This rental should be large enough to be a source of revenue to the State, yet not so large as to prevent a man of small means from taking up sufficient land to employ himself and his family. It should be in lieu of any other tax on oyster grounds. At present such grounds are assessed for taxation at a valuation usually of one dollar per acre; so that the State receives but a few cents in return for the franchise granted. One of the good features of a rental fee is that it will discourage a lessee from entering, or retaining after a trial, greater acreage than he can successfully cultivate.

But it may properly be urged that a prospective planter should receive every encouragement to undertake oyster culture. For this reason the suggestion has been made that no rental be charged for the first year of the lease, in consideration of the expenses devolving on the lessee in connection with the examination and survey of the bottom. During succeeding years the annual charge may be fixed at fifty cents or more per acre; for, if the planting proves profitable enough to justify its continuance, the planter can afford to pay the State for the privileges enjoyed.

VII. REVERSION OF BOTTOMS TO THE STATE.

Provision should be made for the reversion of the bottoms to the State, provided planting is not done within a definite time or is not continued on a reasonable scale. The exact number of bushels of oyster shells that should be planted per acre each year cannot be stated; for this will vary with the character of the bottom and other conditions; also with the plan that the planter's judgment may approve as the best to use in developing his grounds; but a minimum number of bushels per acre should be decided upon. This should not be more than 100 bushels of seed or of oyster shells or an equal amount of other cultch per acre, to be planted within two years.

VIII. TERM OF LEASE.

The lease or franchise should be granted, not for an indefinite time, but for a term of years—say, twenty-five years. It is expedient that at the end of a period of years the State may have opportunity to revise the provisions of the lease, if it seems advisable, in order to adapt them to the state of the industry and other conditions prevailing at that time.

CONCLUSION.

In the preceding pages the fundamental legislative conditions that seem necessary for the building up of the oyster-planting industry, which at the present time is practically undeveloped, have been indicated and briefly discussed. The cultivation of the oyster offers employment and profits to individuals who will undertake planting; it will be not only a source of direct revenue to the State, but indirectly, through the resulting increase of taxable properties, should cause a large revenue. During the past year, 1904, there has been more oyster planting than during any recent year, and this is to be attributed in considerable measure to the results of the investigations that have been carried on by the North Carolina Geological Survey in conjunction with the United States Bureau of Fisheries. There are other persons interested in the cultivation of the oyster who would plant if they could be assured of an incontestable title to the bottoms that they leased from the State. At no time in the history of the State has there been such a good opportunity as at the present time for the building up of a remunerative industry in the cultivation of the oyster; and with proper legislation, this industry should, within the next few years, become a profitable business throughout many districts along the coast of North Carolina.

PRESENT LAWS RELATING TO LEASING OF BOTTOMS.

The laws relating to the leasing of bottoms, as enacted by the Legislature of 1905, are as follows:

[PUBLIC LAWS OF NORTH CAROLINA, 1905, CHAPTER 525.]

AN ACT TO AMEND AND SUPPLEMENT CHAPTER 516 OF THE PUBLIC LAWS OF 1903, IN RELATION TO THE OYSTER INDUSTRY.

SEC. 2. That any person who is and has been continuously for two years a *bona fide* resident of the State of North Carolina and over twenty-one years of age may lease or enter not more than fifty acres of any bottom where oysters do not naturally grow, or on any ground where there is not a sufficient growth of oysters to justify at the time of leasing the gathering of the same for profit. When any person desires to lease or enter any such ground he shall advertise the fact at the court-house and three other places for four weeks in the county where said bottom desired to be leased is located, and advertise in some newspaper published in said county for four weeks, and if there be none published in said county, then in a newspaper published in an adjoining county. Application for such land shall be made to the Clerk of the Superior Court, who shall appoint a man, and the applicant shall choose another, which two so chosen shall appoint a third man, and the three shall constitute a board of arbitration, and the said board of arbitration shall inspect the bottom desired to be leased, and if they find the same subject to lease and so report to the clerk, then it shall be the duty of the said clerk to issue a lease as herein provided, and for such service the clerk shall receive the following fees, to-wit: Twenty-five cents for the application, twenty-five cents for the appointment and twenty-five cents for filing the report of arbitration, and copy-sheet fees for recording such lease and other papers necessary to be recorded. Such bottom shall be surveyed by the County Surveyor; all cost and expense to be paid by the lessee, who shall also pay a yearly rental of fifty cents per acre, which rental shall be paid to the Oyster Commissioner and go to the benefit of the oyster fund. A failure to pay rental for two years shall render the lease null and void. No bottom which has been surveyed prior to the passage of this act need be resurveyed where such leases are plainly marked at the time of the passage of this act. That the County Surveyor shall furnish the lessee a map or plot free of charge. No lease shall be issued for any ground closer than two hundred yards to any natural oyster bed.

It may be noted that under this law now in effect:

1. Bottoms are subject to lease, which do not have a natural growth of oysters, or on which "*there is not a sufficient growth of oysters to justify at the time of leasing the gathering of the same for profit*": *Provided*, the bottoms be not "closer than two hundred yards to any natural bed."

2. The limit of area is increased to fifty acres.

3. It is provided that the applicant shall properly advertise his application.

4. The lessee pays the expenses of the survey and papers and an annual rental of fifty cents an acre.

5. A "Board of Arbitration" is provided for.

6. This board shall consist of three members, one appointed by the Clerk of the Superior Court, one chosen by the applicant, and a third appointed by the first two.

Only the last mentioned provision requires discussion. Each bottom applied for is examined by a board appointed for the examination of the particular bottom in question. The board ceases to exist after examining the bottom, and the responsibility of the board and its members then terminates. When another application is made another board acts. There will not, therefore, be uniformity in the decisions, and no one has any permanent responsibility in the matter. The arrangement seems to leave room for the play of local sentiment, and for irresponsible decisions. In the case of the only application so far made in Carteret County, September, 1905, persons appointed by the Clerk of the Superior Court and by the applicant have declined to serve, and after a number of weeks, a board has not been formed.

While the workings of the law may yet prove otherwise, the law seems defective in the matter of provision for the formation of the Board of Arbitration. It would seem more satisfactory to have the responsibility regarding the leasing of bottoms vested in a permanent commission appointed or elected in the several counties, or assigned to a commission already in existence, such as the Oyster Commission. If the former alternative were followed, and the duty of examination assigned to boards appointed by the Governor for a term of years, the members of a board should receive a fixed compensation and necessary expenses while making an examination, the entire expense to devolve on the applicant. While this would considerably increase the initial expense of the applicant, it has been previously suggested that the rental for the first year be remitted in consideration of this first cost. Either of the arrangements suggested would bring about approximately uniformity of decisions and would increase the responsibility of the officials concerned.

It should be expressly stated that the lease when granted *shall be incontestable except in the event of failure on the part of the lessee to fulfill his part of the contract, and that the removal of shell-fish from leased bottoms without authority from the owner shall be regarded as larceny*. The need for such express provision may be understood from remarks previously made (pp. 10-13 above with footnote, p. 11).

It may be well to call attention to important points not touched by the present law. These are—

The protection of the natural clam beds from entry.

Matter of seed culture.

The permission to use the leased bottoms for either oyster or clam culture.

NORTH CAROLINA LAWS RELATING TO OYSTERS.

There is given below all the laws relating to oysters as given in the Revisal of 1905 of the Laws of North Carolina:

II. OYSTER BEDS.

2371. Natural, defined. A natural oyster or clam bed, as distinguished from an artificial oyster or clam bed, shall be one not planted by man, and is any shoal, reef or bottom where oysters are to be found growing in sufficient quantities to be valuable to the public.

1893, c. 287, s. 1.

2372. Planted in certain territory. Any inhabitant of this state may make a bed in any of the waters of this state, except that part designated as lying south of Roanoke and Croatan sounds and north of Core sound, and lay down or plant oysters or clams therein, having first obtained license as hereinafter directed from the superior court clerk of the county wherein such bed may be, and he may stake out the grounds so as to include not exceeding ten acres with good and substantial stakes, extending at least two feet above high water-mark, and placed at such intervals as to make the boundaries of such bed or garden distinctly known; and every person who shall obtain such license shall hold the same and have exclusive privilege thereof to him, his heirs and assigns. But no person may have more than one such bed in the same county: Provided, nothing herein shall be construed to affect the rights of any owner or proprietor of lands in which there may be creeks or inlets, or which may be adjacent to any navigable waters, or to authorize any person to appropriate to his own use, or to stake off and enclose any natural oyster or clam bed, or in anywise to infringe the common right of the citizens of the state to any such natural bed or to obstruct the free navigation of the waters aforesaid.

Code, s. 3390; 1883, c. 332, ss. 1, 2.

2373. How license is obtained. Whenever a license is desired according to the preceding section the clerk of the superior court of the county wherein the proposed oyster or clam bed may be may, in his discretion, grant a license to make such oyster or clam bed to any inhabitant of this state who shall apply therefor as herein provided; such applicant shall first stake off the proposed oyster or clam bed as provided in the preceding section, and shall publish a notice for thirty days at the courthouse door of the county wherein said bed is proposed, designating the location thereof as near as may be and the day when he will apply for the issuing such license. Upon the day named in said notice, upon which application for such license is to be made, any inhabitant of such county shall have the right to appear

before said clerk and object to the issuing of such license by filing an affidavit stating that the proposed oyster or clam bed is a natural oyster or clam bed. If the said applicant shall refuse to file an affidavit denying the proposed oyster or clam bed is a natural bed, the said clerk shall refuse to grant such license. If such applicant shall file an affidavit denying that such proposed bed is a natural bed, it shall be the duty of such clerk to transmit said affidavits to the next term of the court of said county, and at said term the issue shall be tried to determine whether the proposed bed is a natural bed, and after such trial the said clerk shall grant or refuse said license in accordance with the judgment rendered upon the determination of such issue.

Code, s. 3391; 1893, c. 287, s. 2.

2374. County commissioners to cause survey to be made. The board of county commissioners may in their discretion cause to be made, not oftener than once in twelve months, a survey and examination of any and every such oyster or clam bed or garden in their county, the result of which examination or survey shall be reported under oath to the clerk of the superior court; and if it be found that the holder of such license as aforesaid has included within his stakes any natural oyster or clam bed, or a space containing more than ten acres, he shall forfeit such license and all the rights and privileges thereto belonging; further, if the holder of such license fail for the space of two years either to use such bed or to keep it properly designated by stakes, he shall forfeit such license and all the rights and privileges therein granted.

Code, s. 3392; 1883, c. 332, s. 4.

2375. Under control of the state. The state shall exercise exclusive jurisdiction and control over all shell-fisheries which are or may be located in the boundaries of the state south of Roanoke and Croatan sounds and north of Core sound, and for the purposes of this chapter the southern boundary line of Hyde county shall extend from the middle of Ocracoke inlet to the Royal Shoal lighthouse, thence across Pamlico sound and with the middle line of the Pamlico and Pungo rivers to the dividing line between the counties of Hyde and Beaufort, and the northern boundary line of Carteret county shall extend from the middle of Ocracoke inlet to the Royal Shoal lighthouse, thence to the Brant Island Shoal lighthouse, thence across Pamlico sound to a point midway between Maw point and Point of Marsh, and thence with the middle line of the Neuse river to the dividing line between the counties of Carteret, Craven or Pamlico, and that portion of Pamlico sound and the Neuse and Pamlico rivers not within the boundaries of Dare, Hyde or Carteret counties, and not a part of any other county, shall be in the county of Pamlico, and for the purposes of this chapter and in the execu-

tion of the requirements thereof, the shore line as now defined by the United States coast and geodetic survey shall be accepted as correct.

1887, c. 119, ss. 1, 2.

2376. How beds entered. Any person a citizen and bona fide resident of the state desiring to raise, plant or cultivate shell-fish upon any ground in the county, and within the territory described in the preceding section, which has not been designated as public ground by the board of shell-fish commissioners and which is not a natural clam or oyster bed, may make application in writing, in which shall be stated as nearly as may be the area, limits and location of the ground desired, to the entry-taker of the county in which the said area for which application is made is situated, for a franchise for the purpose of raising or cultivating shell-fish in said grounds, and the said entry-taker having received said application shall proceed as with all other entries as provided in the chapter entitled Grants, except that the warrant to survey and locate the ground or grounds shall be delivered to the engineer appointed by the secretary of state and not to the county surveyor; and the said engineer shall make such surveys in accordance with the provisions of the chapter entitled Grants, except that it shall not be necessary to employ chainbearers nor to administer oaths to assistants, nor to make surveys, according to the priority of the application or warrant. No entry shall be made to cover any natural oyster or clam bed as defined in this chapter, nor of any land lying more than two miles from the main land or from any island.

1887, c. 119, s. 5; 1893, c. 272.

2377. How leased. Any person who is and has been continuously for two years a bona fide resident of the state of North Carolina and over twenty-one years of age may lease or enter not more than fifty acres of any bottom where oysters do not naturally grow or on any ground where there is not a sufficient growth of oysters to justify at the time of leasing the gathering of the same for profit. When any person desires to lease or enter any such ground he shall advertise the fact at the courthouse and three other places for four weeks in the county where said bottom desired to be leased is located, and advertise in some newspaper published in said county for four weeks, and if there be none published in said county, then in a newspaper published in an adjoining county. Application for such land shall be made to the clerk of the superior court, who shall appoint a man and the applicant shall choose another, which two so chosen shall appoint a third man and the three shall constitute a board of arbitration, and the said board of arbitration shall inspect the bottom desired to be leased, and if they find the same subject to lease and so report to the clerk, then it shall be the duty of the said clerk to issue a lease as

herein provided, and for such service the clerk shall receive the following fees, to-wit: Twenty-five cents for the application, twenty-five cents for the appointment and twenty-five cents for filing the report of arbitration, and copy-sheet fees for recording such lease and other papers necessary to be recorded. Such bottom shall be surveyed by the county surveyor; all cost and expense to be paid by the lessee, who shall also pay a yearly rental of fifty cents per acre, which rental shall be paid to the oyster commissioner and go to the benefit of the oyster fund. A failure to pay rental for two years shall render the lease null and void. No bottom which has been surveyed prior to sixth day of March, one thousand nine hundred and five, need be re-surveyed where such leases are plainly marked at that time. The county surveyor shall furnish the lessee a map or plot free of charge. No lease shall be issued for any ground closer than two hundred yards to any natural oyster bed.

1905, c. 525, s. 2.

2378. Secretary of state to issue grant; amount granted limited. The secretary of state, on receipt of the auditor's certificate as provided in the chapter on Grants, shall grant to the applicant a written instrument conveying a perpetual franchise for the purpose of raising and cultivating shell-fish in and to the grounds for which application is made; and the said written instrument of conveyance shall be authenticated by the governor, countersigned by the secretary and recorded in his office. The date of the application for the franchise and a description of the ground for which such franchise was granted shall be inserted in each instrument, and no grant shall issue except in accordance with a certificate from the engineer appointed by the secretary of state as to the area, limits and location of the grounds in which the said franchise is to be granted, and every person obtaining such grant or franchise shall, within three months from the receipt of the same, record said written instrument in the office of the register of deeds for the county wherein the said grounds may lie and shall define the boundaries of the said grounds by suitable stakes, buoys, ranges or monuments; but no franchise shall be given in or to any of the public grounds as determined by the commissioners of shell-fisheries, or to any natural oyster or clam bed, and all franchises granted under this section or any previous law shall be and remain in the grantee, his heirs and legal representatives: Provided, that the holder or holders shall make in good faith within five years from the day of obtaining said franchise an actual effort to raise and cultivate shell-fish on said grounds. No grant shall be made to any one person of more than ten acres of any territory, and no person shall hold more than ten acres in any creek unless the same shall be acquired through devise, inheritance or marriage.

1887, c. 119, s. 6; 1893, c. 272.

2379. Price paid for franchise. Not less than seventy-five cents per acre shall be paid to the state treasurer for all franchises granted, and in all other respects as to protests of entry and the right of the secretary of state to sell to any one else at an increased price the chapter on Grants shall apply.

1887, c. 119, s. 7.

2380. Liable to taxation. All grounds taken up or held for the purpose of cultivating shell-fish shall be subject to taxation as real estate, and shall be so considered in the settlement of the estates of deceased or insolvent persons.

1887, c. 119, s. 9.

2381. Books of records of grants kept. The secretary of state shall keep books of record in which shall be recorded a full description of all grounds granted under the provisions of this chapter, and shall keep a map or maps upon which shall be shown the positions and limits of all public and private grounds.

1887, c. 119, s. 14.

2382. Form of grants approved by attorney general. Entry-takers shall make return to the secretary of state of all franchises granted under this chapter, in the same manner as provided in the chapter entitled Grants, and the provisions of that chapter are hereby extended so as to cover the grants or franchises in ground for raising or cultivating shell-fish as authorized by this chapter; and all applications, grants, warrants and assignments of franchises in or to oyster grounds shall be in manner and form as approved by the attorney general of the state.

1887, c. 119, s. 12.

III. CATCHING OYSTERS.

2383. Close season, exception. If any person shall buy or sell oysters in the shell which have been taken from the public grounds or natural oyster beds of this state between the first day of April and the first day of October in any year, he shall be guilty of a misdemeanor and be fined not more than fifty dollars or imprisoned not more than thirty days: Provided, that oysters may be taken with hand-tongs only during the month of April in any year, to be used for planting on private grounds, entered and held under the laws of this state: Provided further, that oysters may be taken with hand-tongs only for home consumption: Provided further, that coon oysters may be taken from October first to May first of each year in the waters of Onslow and Carteret counties: Provided also, that it shall be lawful to take or catch oysters on public oyster grounds north of the line running from Point Peter to Duck Island, except between a line running from the east end of Hog Island to the beach and from

Ballast Point to the beach in Dare county, to be sold to residents or nonresidents, from April first to May fifteenth of each year, upon the payment by the purchaser of a tax of one and one-half cents per tub.

1903, c. 516, s. 22; 1905, c. 525, ss. 5, 8.

2384. At night or on Sunday. If any person shall catch or take any oysters from any of the public grounds or natural oyster beds of the state at night or on Sunday, he shall be guilty of a misdemeanor and be fined not exceeding fifty dollars or imprisoned not exceeding thirty days.

1903, c. 516, s. 16.

2385. Illegal dredging. If any person shall use any scoops, scrapes or dredges for catching oysters except at the times and in the places in this chapter expressly authorized, or shall between the fifth day of April and the fifteenth day of November of any year carry on any boat or vessel any scoops, scrapes, dredges or winders, such as are usually or can be used for taking oysters, he shall be guilty of a misdemeanor.

1903, c. 516, ss. 13, 14, 15.

2386. Catching oysters without license. If any person shall catch oysters from the public grounds of the state without having first obtained a license according to law, or shall employ any person as agent or assistant, or shall as the agent or assistant of any person catch oysters from the public grounds, without all of said persons having first obtained a license according to law, he shall be guilty of a misdemeanor, and be fined not exceeding fifty dollars or imprisoned not exceeding thirty days.

1903, c. 516, s. 6.

2387. Using boats not licensed. If any person shall use any boat or vessel in catching oysters, which boat has not been licensed according to law, and which is not in all respects complying with the law regulating the use of such vessels, he shall be guilty of a misdemeanor and shall be fined not more than fifty dollars nor less than ten dollars or imprisoned not more than thirty nor less than ten days for the first offense, but for the second or subsequent offense he shall be guilty of a misdemeanor and punished at the discretion of the court.

1903, c. 516, s. 8.

2388. Displaying false number on boat. If any person shall display any other number on their sail than the one specified in their license or display a number when the boat or vessel has not been licensed, he shall be guilty of a misdemeanor and shall be fined not less than twenty-five dollars.

1903, c. 516, s. 27.

2389. Failure to stop and show oyster license. If any person using a boat or vessel for the purpose of catching oysters shall refuse to stop and exhibit his license when commanded to do so by the oyster commissioner, assistant commissioner or any inspector, he shall be guilty of a misdemeanor and be fined not less than twenty-five dollars nor more than fifty dollars.

1903, c. 516, s. 26.

2390. False statement in application for oysterman's license. If any person shall make any false statement for the purpose of procuring any license, which may be required by law, to catch oysters, or to engage in the oyster industry, he shall be guilty of perjury and punished as provided by law.

1903, c. 516, s. 17.

2391. Dredging in prohibited waters. If any person, after the governor has by proclamation suspended the right to use scoops, scrapes or dredges on the public grounds or natural oyster beds of the state, shall during the time of such suspension, and in the waters as to which the right has been suspended, use such instruments or implements to catch oysters from any of the public grounds or natural oyster beds of the state, he shall be guilty of a misdemeanor and be fined not less than five hundred dollars or imprisoned not less than twelve months, and the boat or vessel used for this purpose shall be forfeited and shall be seized, advertised and sold by the oyster commissioner or by the inspectors in the county wherein said illegal act was committed and the proceeds paid into the oyster fund. In any prosecution for the violation of the provisions of this section against the master or owner of a boat or vessel, proof that said boat or vessel was equipped with scoop, scrape or dredge or other implement or instrument for catching or taking oysters other than ordinary oyster tongs shall be prima facie evidence of the defendant's guilt.

1903, c. 516, s. 19.

2392. Selling oysters not culled. If any person shall sell or offer for sale, transport or offer to transport out of the state, or from one point in the state to another, or have in his possession any oysters, which have not been properly culled according to law, he shall be guilty of a misdemeanor and be fined not exceeding fifty dollars or imprisoned not exceeding thirty days.

1903, c. 516, s. 3.

2393. Oysters where purchased to be carried out of the state. If any person shall purchase and load on any vessel or boat any oysters to be carried out of the state in the shell, except at the following places, to-wit: The south end of Roanoke Island, Stumpy Point Bay, Parched Corn Bay, Wysocking Bay, West Bluff Bay, Great Island

Narrows or Swan Quarter Bay (as the oyster commissioner may determine), Portsmouth, Ocracoke, Bay River, mouth of Rose Bay or Harbor Island; or if any person shall load more than one boat or vessel at any of said places at one and the same time, or if any person shall load any boat or vessel with oysters to be carried out of the state without such vessel having an inspector on board at the time the oysters are delivered, or shall carry any vessel loaded or partly loaded with oysters through the canals without a certificate showing that the oysters have been inspected and the taxes thereon paid, he shall be guilty of a misdemeanor and be fined not more than fifty dollars or imprisoned not more than thirty days.

1903, c. 516, s. 17.

2394. Unloading oysters on Sunday or at night. If any person shall unload any oysters from any boat, vessel or car at any factory or house for shipping, shucking or canning oysters on Sunday, or after sunset or before sunrise, he shall be guilty of a misdemeanor and be fined not more than fifty dollars or imprisoned not more than thirty days: Provided, whenever any boat or vessel shall have partially unloaded or discharged its cargo before sunset, the remainder of said load or cargo may be discharged in the presence of an inspector.

1903, c. 516, s. 16.

2395. Dealing in oysters without license. If any person shall engage in the business of buying, canning, packing, shipping or shucking oysters without having first obtained a license as required by law, he shall be guilty of a misdemeanor and be fined not exceeding fifty dollars or imprisoned not exceeding thirty days.

1903, c. 516, s. 9.

2396. Dealer failing to keep record. If any person engaged in buying, packing, canning, shucking or shipping oysters shall fail to keep a permanent record of all oysters bought by him or caught by him, or by persons for him, when and from whom bought, the number of bushels and the price paid therefor, or shall fail upon demand to exhibit such record as required by law, or shall fail to verify the same, he shall be guilty of a misdemeanor and be fined not exceeding fifty dollars or imprisoned not exceeding thirty days.

1903, c. 516, s. 5.

2397. Evidence of illegal dredging. If any boat or vessel shall be seen sailing on any of the waters of this state during the season when the dredging of oysters is prohibited by law in the same manner in which they sail to take or catch oysters with scoops, serapes or dredges, the said boat or vessel shall be pursued by any officer authorized to make arrests, and if said boat or vessel apprehended

by said officer shall be found to have on board any wet oysters or the scoops, scrapes, dredges or lines, or deck wet, indicating the taking or catching of oysters at said time, and properly equipped for catching or taking oysters with scoops, scrapes or dredges, such facts shall be prima facie evidence that said boat or vessel has been used in violation of the provisions of the law prohibiting the taking or catching of oysters with scoops, scrapes or dredges in prohibited territory, or at a season when the taking or catching of oysters with scoops, scrapes or dredges is prohibited by law, as the case may be.

1903, c. 516, s. 28.

2398. Arrests without warrant, when and how made. The oyster commissioner, assistant oyster commissioner and inspector shall have power with or without warrant to arrest any person violating any of the oyster laws.

1903, c. 516, s. 2.

2399. Using illegal measures for oysters. If any person shall in buying or selling oysters use any measure other than that prescribed by law for the measurement of oysters, or if any dealer in oysters shall have in his possession any measure for measuring oysters other than that prescribed by law, he shall be guilty of a misdemeanor and be fined not exceeding fifty dollars or imprisoned not exceeding thirty days.

1903, c. 516, s. 12.

2400. Catching oysters for lime. If any person shall take or catch any live oysters to be burned for lime or for any agricultural or mechanical purpose, he shall be guilty of a misdemeanor and be fined not exceeding fifty dollars or imprisoned not exceeding thirty days.

Code, s. 3389; 1885, c. 182.

2401. Larceny of oysters on private beds. Any person who shall feloniously take, catch or capture or carry away any shell-fish from the bed or ground of another shall be guilty of larceny and punished accordingly.

1887, c. 119, s. 15.

2402. Oysters caught at night; injury to private beds. If any person shall wilfully commit any trespass or injury with any instrument or implement upon any ground upon which shell-fish are being raised or cultivated, or shall remove, destroy or deface any mark or monument lawfully set up for the purpose of marking any grounds, or who shall work on any oyster ground at night, he shall be guilty of a misdemeanor. But nothing in the provisions of this section shall

be construed as authorizing interference with the capture of migratory fishes or free navigation or the right to use on any private grounds any method or implement for the taking, growing or cultivation of shell-fish.

1887, c. 119, s. 11.

IV. OYSTER INDUSTRY REGULATED.

2403. Commissioner and assistant, how appointed, removed; term; salary; bond; oath of office. For the purpose of enforcing the oyster law, the governor shall appoint an "oyster commissioner" and an assistant "oyster commissioner," whose term of office shall be two years, or until their successors are appointed and qualified. They may be removed by the governor at any time for cause. The commissioner shall give bond in the sum of two thousand dollars; the assistant commissioner shall give bond in the sum of one thousand dollars. The bonds shall be payable to the state of North Carolina, shall be conditioned for the faithful discharge of their office, and the proper accounting for all moneys received, shall have at least two sufficient sureties, and shall be approved by and filed with the clerk of the superior court of the county in which the officer resides and be a part of the records of his office. They shall take and subscribe oaths to support the constitution and for the faithful performance of the duties of their office, which oaths shall be filed with the bond. The salary of the commissioner shall be nine hundred dollars per annum, and he shall be allowed three hundred dollars for expenses. The salary of the assistant commissioner shall be seven hundred and fifty dollars per annum. The salaries shall be payable monthly.

1903, c. 516.

2404. Inspectors, how appointed; term; salary; bond; oath of office. The oyster commissioner shall appoint, from the counties within which they are to perform their duties, a sufficient number of inspectors who shall serve during the oyster season, and may remove them for cause. He shall fix the compensation of the inspectors at not exceeding fifty dollars a month while on duty, and shall designate the length of service, the time when the inspectors go on duty, and when they go off. The inspectors shall give bond in the sum of five hundred dollars, payable to the state of North Carolina, conditioned for the performance of the duties of their office, and the faithful accounting for all moneys received, which bond shall have at least two sufficient sureties, to be justified before approved by and filed with the clerk of the superior court of the county where they reside, and shall take, subscribe and file with such clerk an oath of office. They shall be paid only for the time they serve.

1903, c. 516.

2405. Duties of the oyster commissioner. The oyster commissioner shall have a general supervision over every branch of the oyster industry, and see that the laws regulating the same are rigidly enforced. He shall furnish the inspectors and the clerks of the superior courts of the several counties mentioned in this subchapter such receipt and record books, and other kinds of stationery as may be necessary to keep a correct record and account of all the money collected and all information necessary to be kept. Such stationery shall be furnished by the commissioner of labor and printing upon requisition of the oyster commissioner. He shall see that the law regulating the catching and handling of oysters is enforced; that no illegal methods are used in catching, selling or shipping; that the cull law is rigidly enforced, and that only proper and legal measures are used in buying and selling. He shall prosecute all violations of the law, and whenever it is necessary he may employ counsel for this purpose. He may also employ or charter sail vessels, tugs and other boats when necessary to the performance of the duties of his office. He shall in his official capacity have power to administer oaths and to send for and examine persons and papers. He shall, on or before the twenty-fifth day of each month, mail to the treasurer of the state a consolidated statement showing the amount of taxes collected during the preceding month and by and from whom collected. He shall make a biennial report to the governor, setting forth in detail an account of his official acts, the condition of the oyster industry in all its branches, and shall recommend such additions to or modifications of existing laws relating thereto as he may deem proper and necessary. He shall have power and authority and it shall be his duty to make and prescribe all such reasonable rules and regulations as may be necessary and to carry into effect and operation the laws relative to the oyster industry according to its true intent and purposes.

1903, c. 516, ss. 3, 18.

2406. Duties of the assistant commissioner. The assistant oyster commissioner shall be charged with the special supervision, under the commissioner, of all matters relating to oyster industry in the different counties. He is particularly charged with the rigid enforcement of the cull feature of the law, the provisions against the use of illegal measures in buying or selling and the unlawful use of scoops, scrapes and dredges in the bays, creeks, straits, sounds, rivers and their tributaries and elsewhere where the same is prohibited.

1903, c. 516, s. 3.

2407. Duties of inspectors. The inspectors shall, under the commissioner and assistant commissioner, be charged with all matters relating to the oyster industry in their respective counties; they shall inspect all oysters offered for sale in their county, see that they

are properly culled, see that none of the provisions of the law regulating the oyster industry are violated, collect all taxes from dealers on oysters purchased or caught; keep a correct record of all taxes collected by them and from whom and for what purpose collected; and on or before the fifth day of each month mail to the oyster commissioner a report, on such form as he may prescribe, showing all taxes collected by them and from whom received, and at the same time pay over to the commissioner the amount of such taxes.

1903, c. 516, s. 3.

2408. Who may be licensed to catch oysters. No person shall be licensed to catch oysters from the public grounds of the state who is owner, lessee, master, captain, mate or foreman, or who owns an interest in or who is an agent for any boat that is used or that may be used in dredging oysters from the public grounds of the state, who is not a bona fide resident of this state and who has not continuously resided therein for two years next preceding the date of his application for license, and no nonresident shall be employed as a laborer on any boat licensed to dredge oysters under this subchapter who has an interest in or who receives any profit from the oysters caught by any boat permitted to dredge oysters on the public grounds of the state. Any person, firm or corporation employing any nonresident laborer forbidden by this section, upon conviction shall be fined not less than fifty dollars nor more than five hundred dollars.

1903, c. 516, s. 6; 1905, c. 525, s. 3.

2409. How license obtained to catch oysters; who may issue; form of. Any person desiring to catch oysters from the public grounds and natural oyster beds shall make and subscribe to the following oath, before some officer qualified to administer oaths:

I, (state if owner, lessee, master, captain, mate, foreman or agent of any boat used or that may be used in dredging oysters from the public grounds of the state), being an applicant for oyster license, do solemnly swear that I am a citizen of North Carolina and have been a resident of the state for the two years next preceding this day; that my place of residence is now in county; that I will not, if granted license, employ any nonresident or unlicensed person as an assistant or serve as an assistant to any nonresident who is owner, lessee, master, captain, mate or foreman, or who has any interest in, or in the profits derived from, any boat that is used or that may be used in dredging oysters from the public grounds of the state, or unlicensed person, nor will I transfer, assign or otherwise dispose of my license to any person, firm or corporation; that I will not knowingly or wilfully violate or evade any of the laws or regulations of the state relating to oyster industry; so help me, God.

He shall then present to and file said oath with the oyster commissioner, assistant oyster commissioner or inspector, who, if satisfied with the truth of the statement made in the oath of application, shall issue to him an oysterman's license in the following form:

State of North Carolina, County.

....., a resident of.....county, having this day made application to me for an oysterman's license, and having filed with me the oath prescribed by law, I do hereby grant to him license to catch oysters from the public grounds of this state from the fifteenth day of October,, until the first day of next April. Witness my hand and official seal, this the.....day of19....

Oyster commissioner, assistant oyster commissioner or inspector (as the case may be).

The said oath and a record of the license shall be kept by the oyster commissioner, assistant commissioner or inspector, and for issuing and recording the same he shall receive from the applicant a fee of twenty-five cents, which, together with all other license fees collected under this chapter, shall be paid over to the state treasurer and constitute part of the oyster fund. No fee shall be charged by the clerk for administering the oath.

1903, c. 516, s. 7; 1905, c. 525, ss. 4, 6.

Note. For making false affidavit, see Crimes.

2410. License for boat used in catching oysters. The oyster commissioner, assistant oyster commissioner or inspector may grant license for a boat to be used in catching oysters, upon application made, according to law, and the payment of a license tax as follows: On any boat or vessel without cabin or deck, and under customhouse tonnage, using scoops, scrapes or dredges, measuring, over all, twenty-five feet and under thirty, a tax of three dollars; fifteen feet and under twenty feet a tax of two dollars; on any boat or vessel with cabin or deck and under customhouse tonnage, using scrapes or dredges, measuring over all, thirty feet or under, a tax of five dollars; over thirty feet a tax of six dollars; on any boat or vessel, using scoops, scrapes or dredges, required to be registered or enrolled in the customhouse, a tax of one dollar and fifty cents a ton on gross tonnage. No vessel propelled by steam, gas or electricity, and no boat or vessel not the property absolutely of a citizen or citizens of this state on the first day of January, one thousand nine hundred and three, or unless built or owned in this state subsequent thereto and actually owned by a bona fide resident of this state under this chapter, shall receive license or be permitted in any manner to engage in the catching of oysters anywhere in the waters of this state. All boats or vessels so licensed to scoop, scrape or dredge oysters shall display on the port side of the jib, above the reef and bonnet and on the opposite side of mainsail, above all reef points, in black letters, not less than twenty inches long, the initial letter of the county granting the license and the number of said license, the number to be painted on canvas and furnished by the oyster commissioner, assistant oyster commissioner or inspector issuing the license, for which he shall receive the sum of fifty cents. Any boat or vessel used in catching oysters without having complied with the provisions of this

section may be seized, forfeited, advertised for twenty days at three public places in the county where seized, and sold at some public place designated in the advertisement, and the proceeds paid into the oyster fund.

1903, c. 516, s. 8.

2411. License to oyster dealers. The oyster commissioner, assistant oyster commissioner or inspector shall, upon application and the payment of a fee of fifty cents, grant to the applicant a dealer's license, authorizing the applicant to engage in the business of buying, purchasing, canning, packing, shucking or shipping oysters. Such license shall not be issued prior to the fifteenth day of October of any year and shall expire on the first day of April following. The assistant oyster commissioner or inspector granting the license shall at once mail a duplicate to the oyster commissioner.

1903, c. 516, s. 9; 1905, c. 525, s. 6.

2412. Licenses reported monthly. The oyster commissioner, assistant oyster commissioner or inspector who are authorized to issue license or to collect a license tax, shall, on or before the fifteenth day of each month, mail to the oyster commissioner a statement, showing all licenses issued during the preceding month, to whom issued and for what purpose, and the amount of tax collected by them from all sources under the oyster laws, and shall at the same time remit said amount direct to the state treasurer. They shall at the same time mail to each inspector asking for the same a list of all persons to whom license has been issued and of all boats or vessels licensed, and for what purpose.

1903, c. 516, s. 4; 1905, c. 525, s. 6.

2413. Dredging, when allowed; prohibited territory. Any bona fide resident of the state duly licensed according to law and using a licensed boat or vessel may use scoops, scrapes or dredges in catching or taking oysters from the fifteenth day of November in each year to the first day of April following, from the public grounds and natural oyster beds in the broad open waters of Pamlico sound, Pamlico river, Neuse river and Long Shoal river, except in those portions of said sound and rivers in which the use of such instruments and implements is prohibited as herein provided. No person shall use any implement or instrument except hand-tongs in catching oysters in any bay, river, creek, strait, or any tributary of such which border upon or empty into Pamlico sound, Pamlico river, or Long Shoal river, except as hereinafter provided; and any point inside of a line drawn from the farthest or extreme outward point of land or marsh on the one side to the farthest or extreme outward point of land or marsh on the opposite side of any creek, strait or bay, shall be construed to be within the said creek, strait or bay for

the purposes of this section. Nor shall any person use any implement or instrument except hand-tongs in the waters of Pamlico sound from what is known as the Reef or Reefs in the eastern portion of said sound to the line of banks bordering its eastern shores; nor along the shores of Pamlico county inside of a line beginning at Maw Point and running to the west end of Brant island, thence to Pamlico Point; nor in the waters of Pamlico sound north of a line running from Long Shoal light to Gull Shoal life-saving station, from the first day of February of each year to the fifteenth day of November, nor in any of the waters of Carteret county. And for the purpose of this section, the northern boundary of said county shall be a line extending from Swan Point to Harbor Island light, thence a line to Southwest Straddle light, thence a line to Northwest Point light, thence a line to the middle of Ocracoke Inlet; nor in the waters of Neuse river above a line in said river running from Carbacon buoy to the western point of land at Pierce's creek.

1903, c. 516, ss. 13, 14, 15; 1905, c. 507, s. 2.

2414. Governor may suspend right to dredge. The governor, upon the request of the oyster commissioner, may, whenever in his judgment it is necessary, by proclamation, suspend entirely the use of all scoops, scrapes or dredges in any of the waters of the state, either for a definite period of time or until the sitting of the next general assembly.

1903, c. 516, s. 19.

2415. Oysters culled on grounds. All oysters taken from the public grounds of this state, with whatsoever instrument or implement, shall be culled and all oysters whose shells measure less than two and one-half inches from hinge to mouth, except such as are attached to a large oyster and can not be removed without destroying the small oyster, and all shells taken with the said oysters shall be returned to the public ground when and where taken, and no oysters shall be allowed by the inspectors to be marketed which shall consist of more than ten per cent. of such small oysters and shells, except "coon" oysters and oysters largely covered with mussels: Provided, these musselled oysters must not contain more than five per cent. of shells or small oysters under regulation size.

1903, c. 516, s. 11; 1905, c. 525.

2416. Oysters not culled seized and put on public grounds. Whenever oysters are offered for sale or loaded upon any vessel, car or train, without having been properly culled according to law, the commissioner, assistant commissioner, or inspector shall seize the boat, vessel, car or train containing the same and shall cause the said oysters to be scattered upon the public grounds, and the costs and expenses of said seizure and transportation shall be a prior lien

to all liens on said boat, vessel, car or train, and if not paid on demand the officers making the seizure shall, after advertisement for twenty days, sell the same and make title to the purchaser, and after paying expenses as aforesaid pay the balance, if any, into the oyster fund.

1903, c. 516, s. 3.

Note. For selling uncultured oysters, see s. 2392.

2417. Dimensions of oyster measure. All oysters measured in the shell shall be measured in a circular tub with straight sides and straight, solid bottom, with holes in the bottom not more than one-half inch in diameter. The said measure shall have the following dimensions: A bushel tub shall measure eighteen inches from inside to inside across the top, sixteen inches from inside to inside chime to the bottom and twenty-one inches diagonal from inside chime to top. All measures used for buying or selling oysters shall have a brand, to be adopted by the oyster commissioner, stamped therein by said commissioner, assistant commissioner, or his lawful inspectors. All measures found in the possession of any dealer not meeting the requirements of this section shall be destroyed by said oyster commissioner, assistant commissioner or inspector.

1903, c. 516, s. 12.

2418. Dealers to keep records. All persons engaged in buying, packing, canning, shucking or shipping oysters shall keep a permanent record of all oysters either bought or caught by them, or by persons for them, when and from whom bought, the number of bushels and the price paid therefor. All these records shall at all times be open to the examination and inspection of the oyster commissioner, assistant oyster commissioner and inspector, and upon request shall be verified by the parties making them.

1903, c. 516, s. 5.

2419. Purchase tax. All dealers in oysters and all persons who purchase oysters for canning, packing, shucking or shipping shall pay a tax of one and one-half cents on every bushel of oysters purchased by them, or caught by them, or any one for them: Provided, that coon oysters shall be taxed one-half a cent a bushel only; and no oysters shall be twice taxed. This tax shall be paid to and collected by the inspectors, and when paid a receipt shall be given therefor. Upon failure or refusal by any person, firm or corporation to pay said tax, his license as a dealer shall at once become null and void, and no further license shall be granted him during the current year, and it shall be the duty of the commissioner, assistant commissioner or inspector to institute suit for the collection of said tax. Such suit shall be in the name of the state of North Carolina on relation of the commissioner or of the inspector at whose instance

such suit is instituted, and the recovery shall be for the benefit and to the use of the general oyster fund.

1903, c. 516, s. 10; 1905, c. 507.

2420. Vessels with oysters, when allowed to go through canals.

No boat or vessel loaded with oysters shall be permitted by the inspectors of South Mills and Coinjock to pass through the canals, which do not have a certificate showing that the cargo has been inspected and the tax paid thereon.

1903, c. 516, s. 17.

2421. Shells scattered on oyster beds. The oyster commissioner is hereby empowered to expend one-half of the balance to the credit of the oyster fund on the fifteenth day of April in each year for the purpose of buying oyster shells and scattering the same on the natural oyster grounds of the state during the months of April and May.

1903, c. 516, s. 20.

2422. Oyster funds kept separate, how paid out. The treasurer of the state shall keep all funds derived from the oyster industry separate and apart from other funds in the treasury and shall pay the same out only upon the warrant of the auditor, and the auditor shall issue no warrant on said fund in payment of any claim unless the same shall have been first approved by the oyster commissioner.

1903, c. 516, s. 20.

V. CLAMS.

2423. Clams. If any person between the first day of April and the first day of November of any year shall take any clams from the waters of Brunswick, New Hanover or Pender counties for the purpose of shipping, selling, marketing, or for bedding or pounding the same in any artificial bed, or if any person shall take or catch any oysters in the waters of Carteret county by dredging or scoops, or in any manner other than with the ordinary clam rake, or tongs, or if any nonresident shall take or catch any clams, he shall be guilty of a misdemeanor.

1901, c. 113; 1897, c. 333; 1899, c. 579; 1903, cc. 131, 414, 658, 732.

2928. May establish and regulate markets; street sales free, when. The board of commissioners may establish and regulate their markets, and prescribe at what place, within the corporation, shall be sold marketable things; in what manner, whether by weight or measure, may be sold grain, meal or flour (if the flour be not packed in barrels), fodder, hay, or oats in straw; may erect scales for the

purpose of weighing the same, appoint a weigher, fix his fees, and direct by whom they shall be paid. But it shall not be lawful for the commissioners or other authorities of any town to impose any tax whatever on wagons or carts selling farm products, garden truck, fish and *oysters* on the public streets thereof.

Code, s. 3801; R. C., c. 111, s. 14; 1879, c. 176. Revisal of 1905, p. 885.

3444. Food misbranded or adulterated. If any person shall himself or by an agent or employee manufacture, sell, expose for sale, or have in his possession with intent to sell any article of food which is adulterated or misbranded, he shall be guilty of a misdemeanor, and shall be fined not exceeding two hundred dollars or be imprisoned not exceeding one year, or both. * * *

For the purpose of this section an article of food shall be deemed adulterated— * * *

8. If * * * In cases of meats, oysters or fish sold or offered for sale in the fresh state, if such meats, *oysters* or fish shall have been inoculated, dusted, powdered, sprayed, rubbed, anointed, washed, sprinkled or fumigated, or in any manner treated with any of the substances declared deleterious and dangerous by this section, or with any antiseptic or chemical preservative or dye-stuff whatsoever, whose use and apparent purpose is to retard, prevent or mask decomposition, or to give to the meat, *oysters* or fish a false appearance of freshness or quality. * * *

1895, c. 122; 1899, c. 86, ss. 2-6; 1899, c. 369; 1905, c. 306, ss. 3 and 4.

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